

REMARKS

The Amendments

Claim 5 is amended to make it dependent upon claim 1, the scope and meaning of the claim is unchanged. The amendment does not narrow the scope of the claims and was not made for reasons related to patentability. Support for new claims 16 and 17 is found in the disclosure, see, e.g., page 6, lines 16-18.

The Restriction Requirement

Applicants respectfully renew their traversal of the restriction requirement restricting claims 3 and 5-15. Applicants acknowledge the statements in the Final Office Action of August 14, 2002, regarding applying the Unity of Invention standard rather than the MPEP standard. But the Unity of Invention standard is less restrictive than the MPEP standard and applicants' traversal is even more convincing under this standard, as discussed below.

Claim 3 and claims 5-15 clearly have Unity of Invention with claims 1, 2 and 4 because they all are based on the encased monolithic sorbent as recited in claim 1. Claim 3 is directed to a method of using this defined sorbent and claims 5-15 are directed to a method of making this defined sorbent (claim 5 is made dependent on claim 1 by the above amendment to make this even more clear).

The application of the standard as set forth in the Office Action is not proper. Under the reasoning set forth therein, any claim merely alleged to be rejectable over prior art could be restricted from any other claim. The definition of "special technical features" relates to aspects of the invention which applicants view as distinguishing the art. The Office Action admits that the sorbent as recited in applicants' claim 1 is a special technical feature. This feature is shared by all the instant claims and, thus, there is unity of invention. That they are

not any
shared feature

rejected as purportedly anticipated or obvious (see traversal thereof below) does not change this fact.

Applicants' previous arguments based on the MPEP standard even further support withdrawal of the restriction. If it is not supported by the tougher MPEP standard, it surely is not supported under the Unity of Invention standard.

The remarks in the Advisory Action of December 3, 2002, are also noted. That the restriction was previously made Final should not preclude its further reconsideration particularly since the case for withdrawing the restriction is so clear. Reconsideration should especially be made now that applicants have filed an RCE.

For the above reasons, it is urged that the restriction should be withdrawn and all the claims examined.

The Rejection under 35 U.S.C. § 102

The rejection of claims 1 and 2 under 35 U.S.C. § 102, as being anticipated by WO 94/19687, is respectfully traversed.

WO 94/19687 discloses porous ceramic shaped bodies for use as a substance separating medium, particularly in chromatography columns or cartridges. The reference also discloses that the porous ceramic shaped bodies can be surface-modified. At page 7 and in Figure 1, the reference depicts a porous ceramic shaped body which is covered by a liquid-impermeable Teflon sleeve; element 2 in the drawing. This is covered by a pressure-resistant sleeve (i.e., "Druckmantel" (element 3 in the drawing)), which is particularly of a metal, to provide a rigid, pressure-resistant structure. See the discussion of WO '687 on page 1 of the instant specification. It is alleged in the Office Action, based on U.S. Patent No. 4,556,538, that the "impermeable Teflon material of WO 94/19687 reads on Applicants' liquid-

impermeable, pressure-resistant plastic casing because it is known in the art of chromatography that Teflon is pressure resistant.”

Applicants respectfully disagree that the ‘538 patent shows that the Teflon sleeve as used in WO 94/19687 is known to be pressure-resistant. In fact, the art considered as a whole shows the opposite. The cited portion of the ‘538 patent discloses that the pressure-resistant column is of stainless steel, Teflon, acrylic resin, polyethylene or glass. If the column is of Teflon in the ‘538 patent, it would have to be of a different structure than in WO ‘687. For example, it would have to be a much thicker layer of Teflon. Or it could be provided with a rigid, e.g., metal, covering as in WO ‘687, in which case it is the covering, not the Teflon, which provides the pressure-resistance. One of ordinary skill in the art would know that such a pressure resistant column could not be provided merely with the thin Teflon sleeve such as shown in WO 94/19687 since a thin layer of Teflon does not provide a rigid structure. This is clearly shown in WO ‘687 by the fact that an outer pressure-resistant covering, i.e., the Druckmantel (3), must be provided around the thin Teflon coating to provide a pressure-resistant structure. WO ‘687 specifically states that it is this thicker outer covering, not the Teflon sleeve, which provides the pressure-resistance. The German word “Druck” refers to pressure. This is also pointed out on page 1 of applicants’ specification.

a lot of hot air, with a question mark

WO ‘687 also discloses an embodiment wherein a liquid is filled in a gap (i.e., the “spalt” element 8) between the Teflon coating and the pressure-resistant covering to ensure a close fit of the Teflon sleeve to the sorbent. This would not be possible unless the Teflon sleeve was flexible and, thus, not pressure resistant.

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The argument in the Advisory Action that the flexible Teflon sleeves of the prior art will show some minimal amount of pressure-resistance is not supportive of the rejection. Obviously, any material will exhibit some extent of pressure-resistance. But the term

“pressure-resistant” in claim 1 cannot be considered in a vacuum; it must be considered in the context of the disclosure as a whole and in the context of the knowledge of one of ordinary skill in this art, i.e., in encasing a monolithic sorbent. WO ‘687 itself clearly evidences that the Teflon sleeve disclosed therein was not considered “pressure-resistant” otherwise WO ‘687 would not require the additional pressure-resistant covering, i.e., the Druckmantel (3). not
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Further evidence that the Teflon sleeve of WO ‘687 would not be considered “pressure-resistant” is provided in the attached Declaration under 37 C.F.R. § 1.132 by Dr. Lubda who is one skilled in this art. Dr. Lubda attests to the fact, as supported by actual examples, that the Teflon sleeve of WO ‘687 is not “pressure-resistant” in the context of use for encasing a monolithic sorbent. The Teflon sleeves failed at pressure significantly below the typical minimum operating pressures used in the monolithic sorbent art. ph. business
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Regarding new claims 16 and 17, WO ‘687 obviously does not disclose a pressure-resistant plastic casing comprised of a polyether ether ketone material. Thus, the 35 U.S.C. § 102 rejection is more clearly not applicable to these claims.

For the above reasons, it is again urged that WO ‘687 does not meet all elements of the claims and cannot anticipate the claims under 35 U.S.C. § 102. The rejection should, therefore, be withdrawn.

The Rejection under 35 U.S.C. § 103

The rejection of claim 4 under 35 U.S.C. § 103, as being obvious over WO 94/19687 in view of Nakanishi (U.S. Patent No. 5,624,875), is respectfully traversed.

The discussion of WO ‘687 above is incorporated herein by reference. Nakanishi was cited for its teachings regarding pore types and size of a sorbent material. As applicants have

previously established, Nakanishi teaches nothing about encasing such a sorbent material and particularly not encasing in a "liquid-impermeable manner by a pressure-resistant plastic casing." Thus, Nakanishi provides no motivation to modify the encasing structure of WO '687. WO '687, likewise, provides no motivation to provide a sorbent encased in a "liquid-impermeable manner by a pressure-resistant plastic casing." In the absence of any such motivation, the claimed invention could not have been obvious to one of ordinary skill in the art from these references. Thus, the rejection under 35 U.S.C. § 103 should be withdrawn.

It is submitted that the application is in condition for allowance. But the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE CLAIMS:**

5. (Amended) A method of ~~encasing a~~ making an encased monolithic ceramic sorbent according to claim 1, comprising:

- a) providing a monolithic ceramic sorbent comprising at least one porous ceramic moulding, and
- b) providing a ~~tightly-fitting~~ liquid-impermeable, pressure-resistant fitted polymer casing around the ceramic sorbent.